CLAIMS

1. A method of controlling the operating speed of a manufacturing facility comprising the steps of:

determining a desired operating speed, the desired operating speed dependent on at least one economic variable that varies depending on the operating speed; and

adjusting the operating speed in response to the determination.

2. The method of claim 1, further including the steps of:

determining a current operating speed of the manufacturing facility;

comparing the current operating speed to the desired operating speed; and

further adjusting the operating speed in response to the comparison.

3. The method of claim 2, wherein the at least one economic variable is at least one of: a cost of manufacturing, at least one manufacturing inflow, and at least one manufacturing outflow.

4. The method of claim 3, wherein the desired operating speed is determined by calculating the cost of manufacturing, the manufacturing inflow, and the manufacturing outflow at a plurality of potential operating speeds, and selecting the desired operating speed from the potential operating speeds.

5. The method of claim 3, wherein the desired operating speed is determined by calculating a marginal cost of manufacturing, a marginal manufacturing inflow, and a marginal manufacturing outflow at a plurality of marginal potential operating speeds and selecting the desired operating speed from the marginal potential operating speeds and a prior desired operating speed.

6. The method of claim 1, wherein the economic variable is cost of manufacturing, and the cost of manufacturing includes ascertaining the correlation between operating speed and the cost of manufacturing.

7. The method of claim 6, wherein the cost of manufacturing is determined by ascertaining a correlation between operating speed and at least one of the following: the per-unit cost of manufacturing inflows and the usage of manufacturing inflows.

8. The method of claim 7, wherein the correlation between manufacturing cost and operating speed is ascertained by establishing the correlation between

manufacturing costs and operating speed of specific equipment or process in a manufacturing facility.

9. The method of claim 7, wherein the correlation between manufacturing cost and the operating speed of a manufacturing machine includes the manufacturing inflows during one or more of breaks and production that produces finished product of unacceptable quality.

10. The method of claim 7, wherein the correlation between manufacturing cost and operating speed for a machine is determined by including usage of manufacturing inflows associated with breaks.

11. The method of claim 7, wherein the correlation between manufacturing cost and operating speed is ascertained by establishing the correlation between manufacturing costs and operating speed of groups of at least one of equipment and processes in a manufacturing facility.

12. The method of claim 11, wherein the purchase price of manufacturing inflows is assigned, from lowest to highest per-unit cost, to increasing levels of the manufacturing facility's production.

13. The method of claim 3, wherein the manufacturing outflow is determined by ascertaining a correlation between operating speed and sales of at least one of finished products and byproducts.

14. The method of claim 13, wherein the correlation between the operating speed and sales is ascertained by assigning a plurality of manufacturing outflows to at least one specific portion of the manufacturing facility's production.

15. The method of claim 13, wherein the correlation between operating speed and sales includes variations in product mix.

16. The method of claim 15, wherein the manufacturing outflow is determined, from highest to lowest per-unit economic value, for increasing levels of the manufacturing facility's production.

17. A method of determining the effect of one or more business transactions on the economic efficiency of the production of products in a manufacturing facility, wherein the economic efficiency is dependent on one or more economic variables that varies dependent on operating speed, comprised of:

obtaining the current economic efficiency of the facility;

inputting information on the business transactions that affects the economic variables;

computing the economic efficiency of the facility with the proposed transaction leaving the remaining variables constant; and

displaying the information to an end-user.

18. The method of claim 17, wherein the operating speed of the manufacturing facility is dependent on at least one economic variable that varies depending on the operating speed.

19. The method of claim 18, wherein the transactions include at least one of purchase of inflows, sales of outflows, capital additions, capital subtractions, changes to equipment, change in product mix.

20. The method of claim 18, wherein the business transactions are proposed business transactions.

21. A manufacturing facility operating speed controller comprised of:

means for determining a current operating speed of the manufacturing facility;

means for determining a desired operating speed, the desired operating speed dependent on at least one economic variable that varies depending on the operating speed;

means for comparing the current operating speed to the desired operating speed; and adjusting the current speed in response to the comparison.

22. The apparatus of claim 21, wherein the means for determining includes means for determining a desired operating speed to achieve an optimal operating speed from at least one of: a cost of manufacturing, at least one manufacturing inflow, and at least one manufacturing outflow.

23. The apparatus of claim 22, wherein the means for determining includes means for determining a desired operating speed by calculating the cost of manufacturing, the manufacturing inflow, and the manufacturing outflow at a plurality of potential operating speeds and selecting the desired operating speed from the potential operating speeds.

24. The apparatus of claim 22, wherein the means for determining include

means for determining a desired operating speed by calculating a marginal cost of manufacturing, a marginal manufacturing inflow, and a marginal manufacturing outflow at a plurality of marginal potential operating speeds and selecting the desired operating speed from the marginal potential operating speeds.

25. The apparatus of claim 23, wherein the means for determining include means for determining a desired operating speed by ascertaining the correlation between operating speed and the cost of manufacturing.

26. The apparatus of claim 25, including means for determining the variable cost of manufacturing by ascertaining a correlation between operating speed and at least one of the following: the per-unit cost of manufacturing inflows and the usage of manufacturing inflows.

27. The apparatus of claim 24, further including means for determining manufacturing outflows by ascertaining a correlation between operating speed and sales of at least one of finished products and byproducts.

28. The apparatus of claim 27, wherein the means for ascertaining includes means for correlating the manufacturing outflows by assigning different economic values of manufacturing outflow with specific portions of the manufacturing facility's production.

29. The apparatus of claim 28, further includes means for determining the at least one of manufacturing outflows from highest to lowest per-unit economic value, to increasing levels of the manufacturing facility's production.

30. An apparatus for determining the effect of one or more business transactions on the economic efficiency of the production of products in a manufacturing facility, wherein the economic efficiency is dependent on one or more economic variables that varies dependent on operating speed, comprised of:

means for obtaining the current economic efficiency of the facility;

means for inputting information on the business transactions that affects the economic variables;

means for computing the economic efficiency of the facility with the proposed transaction leaving the remaining variables constant; and

means for displaying the information to an end-user.

31. The apparatus of claim 30, wherein the means for computing includes means for computing economic efficiency using a operating speed of the manufacturing facility dependent on at least one economic variable that varies depending on the operating speed.

32. The apparatus of claim 30, wherein the means for inputting information includes means for inputting information on at least one of purchase of inflows, sales of outflows, capital additions, capital subtractions, changes to equipment, change in product mix.

33. An article of manufacture comprising:

a computer usable medium having computer readable program code embodied therein for determining a desired operating speed of a facility comprising:

computer readable program code means for receiving as an economic input at least one economic variable that varies depending on the operating speed;

computer readable program code means for determining the desired speed, the desired speed being dependent on the economic input; and

computer readable program code means for outputting the optimal speed; said optimal speed being inputted into said manufacturing facility in conjunction with a computer system.

34. The article of claim 33, further including:

computer readable program code means for determining a current operating speed of the manufacturing facility;

computer readable program code means for comparing the current operating speed to the desired operating speed; and

computer readable program code means for further adjusting the current speed in response to the comparison.

35. The article of claim 33, wherein the means for determining includes computer readable program code means for determining a desired operating speed from at least one of: cost of manufacturing, manufacturing inflows, and manufacturing outflows.

36. The article of claim 35, wherein the means for determining includes computer readable program code means for determining a desired operating speed by

calculating the cost of manufacturing, the manufacturing inflow, and the manufacturing outflow at a plurality of potential operating speeds and selecting the desired operating speed from the potential operating speeds.

37. The article of claim 35, wherein the means for determining includes computer readable program code means for determining a desired operating speed by calculating a marginal cost of manufacturing, a marginal manufacturing inflow, and a marginal manufacturing outflow at a plurality of marginal potential operating speeds and selecting the desired operating speed from the marginal potential operating speeds that contribute to achieving optimal operating speeds.

38. The article of claim 37, wherein the economic variable is cost of manufacturing, and further including computer readable program code means for ascertaining the correlation between operating speed and the cost of manufacturing.

39. The article of claim 38, further including computer readable program code means for ascertaining a correlation between operating speed and at least one of the following: the per-unit cost of manufacturing inflows and the usage of manufacturing inflows.

40. The article of claim 38, further including computer readable program code means for establishing the correlation between manufacturing costs and operating speed of specific equipment or process in a manufacturing facility.

41. The article of claim 38, further including computer readable program code means for correlating the manufacturing cost and the operating speed of a machine including the manufacturing inflows utilized during one or more of breaks and to periods in which finished product of unacceptable quality is produced, measured by including such manufacturing inflows utilized with other manufacturing inflows utilized in the machine operation.

42. The article of claim 38, further including computer readable program code means for correlating the manufacturing cost and operating speed for a machine by including usage of manufacturing inflows associated with breaks and finished goods of unacceptable quality.

43. The article of claim 38, further including computer readable program code means for correlating the manufacturing cost and operating speed by establishing the

correlation between manufacturing costs and operating speed of groups of equipment or processes in a manufacturing facility.

44. The article of claim 42, further including computer readable program code means for assigning the purchase price of manufacturing inflows from lowest to highest per-unit cost, to increasing levels of the manufacturing facility's production.

45. The article of claim 37, further including computer readable program code means for ascertaining a correlation between operating speed and sales of at least one of finished products and byproducts.

46. The article of claim 38, further including computer readable program code means for assigning different economic values of manufacturing outflows to specific portions of the manufacturing facility's production.

47. The article of claim 45 further including computer readable program code means for correlating operating speed and sales by including variations in product mix.

48. The article of claim 43, further including computer readable program code means for assigning the manufacturing outflow from highest to lowest per-unit economic value, to increasing levels of the manufacturing facility's production.

49. An article of manufacture comprising:

a computer usable medium having computer readable program code embodied therein for determining the effect of one or more business transactions on the economic efficiency of the production of products in a manufacturing facility, wherein the economic efficiency is dependent on one or more economic variables that varies dependent on operating speed, comprised of:

computer readable program code means for obtaining the current economic efficiency of the facility;

computer readable program code means for inputting information on the business transactions that affects the economic variables;

computer readable program code means for computing the economic efficiency of the facility with the proposed transaction leaving the remaining variables constant; and

computer readable program code means for displaying the information to an end-user.

50. The article of claim 48 further including computer readable program code means for determining the economic efficiency using at least one economic variable that varies depending on the operating speed.

51. The article of claim 48, wherein the means for inputting information includes computer readable program code means for inputting information on at least one of purchase of inflows, sales of outflows, capital additions, capital subtractions, changes to equipment, change in product mix.

52. The method of claim 1 wherein said manufacturing facility is a process manufacturing facility.

53. The method of claim 17 wherein said manufacturing facility is a process manufacturing facility.

54. The manufacturing facility operating speed controller of claim 21 wherein said manufacturing facility is a process manufacturing facility.

55. The apparatus of claim 30 wherein said manufacturing facility is a process manufacturing facility.

56. The article of claim 33 wherein said manufacturing facility is a process manufacturing facility.

57. The article of claim 49 wherein said manufacturing facility is a process manufacturing facility.

58. The method of claim 1 wherein said at least one economic variable is determined in real time.

59. The method of claim of 58 wherein said at least one economic variable is determined using Internet.

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